THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.] THURSDAY, NOVEMBER 25, 1869. [VOL. IV.—NOS. 20-21.

Original Communications.

TUBERCULOSIS OF THE IRIS.

By Dr. P. N. GRADENIGO, Ophthalmic Department of the Civil Hospital of Venice.

[Translated by B. JOY JEFFRIES, A.M., M.D.*]

THE study of pathological anatomy had long ago established beyond doubt the formation of tubercle in each of the several tissues of the organism, although till now tubercle of the eye has not been included in ophthalmic nosology. This important discovery was reserved for the ophthalmoscope. Thanks to the investigations of Manz, Cohnheim, Graefe and others, this morbid product may at present be easily recognized at its very commencement in the bottom of the living eye, not only to confirm a doubtful medical diagnosis, but often as the single but most important precursory symptom of this fearful disease, which will later manifest itself in other vital organs.

The coincidence of tubercle of the choroid with acute tuberculosis is more frequent than supposed. Cohnheim found tubercle of the choroid in fourteen successive *post mortems* of acute general tuberculosis. To the ophthalmoscope these appeared as scattered nodules from an eighth to half a millimetre in size, and of a yellowish white and gray color; principally on the portion of the fundus accessible to the mirror, viz., in the region of the optic papillæ. Their form is always round, the pigmented epithelium covering them gradually giving way, and finally disappearing without being massed on the periphery, as takes place with other inflammatory products of the fundus.

The cornea also may be the seat of tubercle. Our colleague, Prof. Aveoleo, in 1859, called the attention of practitioners to some peculiar products in the substance of the cornea, found with phthisis, products which, under the microscope, presented all the characters of tubercle. Later, he published several observations on this point. The *iris* has, however, till now been thought to be exempt from this disease.

So far as I know, no one has yet described any similar case, and much less demonstrated by the microscope the existence of tubercle in the iris. That most exact observer, Wecker, in the second edition of his very valuable work published the past year, remarks that the "*tubercular diathesis does not tend to localize itself in the iris.*"

These few remarks, therefore, show the importance of this case of tubercular iritis, occurring in the ophthalmic ward of the hospital.

An iron-worker, æt. 21, entered August 16, 1868. The trouble in the right eye had lasted about three months, not yielding to some local remedies. He suffered but slightly, and sought regular treatment for the gradually diminishing vision in this eye. His parents died insane, but were otherwise healthy. Has had a variety of scrofulous troubles, always led a regular life, quite temperate, and asserting that he has never known a woman. Reported by his companions as a steady workman, and of a kind and affable disposition. Medium height, well nourished, skin pale and delicate, a slight, limited blush of the cheeks, muscles flabby, head large, cranium badly shaped and chest contracted. Appetite voracious. No trouble of the circulation; respiratory and digestive organs normal.

The condition of the right eye was as follows:—Lids flabby; conjunctiva slightly œdematous; injection round the cornea, rosy-red, shining, deep; cornea transparent, except three or four points of some minute interstitial deposit, circular, isolated, the size of the head of a fine needle, of grayish-white color, located beneath Bowman's elastic layer, and others deeper, reaching to the anterior chamber down to Descemet's elastic membrane. The anterior chamber is reduced, the aqueous humor a little turbid.

* I have translated from the Italian Ophthalmic Journal the following case of tuberculosis of the iris, as I am not aware of the report of any similar observation. I would add that the Civil Hospital in Venice has an out-clinique for ophthalmic patients, and fifty beds for the reception of those requiring admittance for operation or treatment. B. J. J.

By lateral illumination, the blue iris appears velvety and altered in structure. Six or seven little corpuscles, quite distinct, round, the size of half a millet seed, and of a yellowish-white, or slightly reddish color, jut out from the stroma of the iris into the anterior chamber, occupying mostly the external and lower segment between the greater and lesser circle of the iris.

The pupil is contracted and misshapen by several posterior synechiæ; the anterior capsule mostly clouded. The globe is not tense, and no pain in it or in the course of the trigeminal branches; lachrymation diminished, the patient complaining only of frequent photopsia and an uncomfortable sensation of heat and burning in the upper lid. Vision in this eye corresponds to the opacity of the media, reading Giraud-Teulon's No. 20 at 1 foot.

During the first few days of his entrance, he had the classic treatment for iritis and its sequelæ: atropine, calomel, paracentesis, &c., but without the slightest effect. The iris did not yield to the mydriatic; its cloudiness increased, the whitish corpuscles above described remaining immovable on its surface. The cornea became less transparent, and the tension of the globe began to diminish. To induce absorption and resist the slow process which threatened atrophy of the bulb, cold lotions were used, but without effect. In view of the fact that syphilis seemed excluded, the long duration of the disease, and its not yielding to treatment, and all the ordinary signs of open inflammation being wanting, suspicion began to be entertained that these little bodies, which at first I thought the sequelæ of iritis, were instead the *proximate* and *immediate* exciting cause—that is to say, that we here had a new and specific form of iritis, *tubercular iritis*.

In support of this suspicion there occurred, two days afterwards, a spontaneous and abundant hæmophthalmia, which gradually absorbed, and again recurred without known cause. Careful inquiry, moreover, revealed the fact that the patient had always been scrofulous, had had hæmoptysis the previous year, and lost a relative from slow tuberculosis.

Careful auscultation and percussion gave no pathognomonic signs for precise diagnosis. Respiratory murmur extensive, dry and rougher than normal; some râles at apex of right lung. Local treatment was now limited to atropine, and attempting to ameliorate the general condition, which latter, nevertheless, during the patient's prolonged sojourn in the ward, became daily worse. Cod-liver oil was added to nutritious and digestible food. Exercise and out-door air were allowed. Meanwhile the trouble in the eye remained stationary, a progressive diminution of vision being noticed; when in the left eye appeared, with but slight irritative phenomena, the little bodies on the iris, having all the characters of those observed in the right eye, but without pain or the peculiar signs of iritis.

In the hope that microscopic examination would determine the tubercular character of these little tumors, excision of a fragment of the iris was attempted in the right eye. Unfortunately, copious bleeding at the first insertion of the forceps, friability of the tissue and the numerous synechiæ prevented my effecting it.

No reaction followed this attempt, and the morbid process did not alter its appearance in any way. A few days afterwards, *i. e.* some three months after entrance, a most violent colic suddenly occurred, accompanied with obstinate vomiting. The tongue became dry and red, the abdomen distended and painful to pressure, thirst insupportable and the pulse feeble. Copious diarrhœa followed and marked loss of strength. Treatment directed by the symptoms relieved this attack. But the fever continued, with burning heat by day and profuse sweating by night. The redness of the tongue spread to the palate and to the pharynx, soon accompanied with troublesome and persistent cough, at first dry and then with abundant purulent secretion. Respiration hastened, and dyspnœa.

The patient was transferred to the medical department, where he died on the eighth day from the time of taking to his bed. *Autopsy*, twenty-four hours after, showed enormous quantities of miliary tubercles, some fresh, some already softening, not only in the lungs, but in the liver, spleen, mesentery, glands, and under the mucous membrane of the intestine. [The details of the *post mortem* are omitted.—Trans.]

These *post-mortem* appearances left no doubt as to the character of the disease which caused death, and the microscopic examination confirmed the diagnosis made two months previous in reference to the affection of the iris.

The two globes were carefully removed and placed in Müller's fluid. These were examined some days subsequently, having become sufficiently hardened, and the following alterations are noticed:—Size and shape normal. The cornea of the right eye was thickened to twice that of the left, the latter being healthy. Adherent to its

internal surface and projecting into the anterior chamber, were seen several nodules, rather soft, of a whitish cheesy substance, readily separated from Descemet's membrane. The anterior chamber rather reduced. The iris adherent to the capsule of the lens at several points, thickened and discolored. Numerous yellowish-white corpuscles, similar to those in the cornea, were scattered in its parenchyma, specially on its anterior surface, near the pupillary margin, and also on the periphery.

The sclerotic, lens, choroid and retina apparently normal. The vitreous slightly turbid, and rather more consistent than usual. Near the optic nerve entrance, projecting into the choroid, were noticed two or three isolated granulations, of whitish color, very similar to the products above mentioned.

In the left eye nothing abnormal was noticed, except some of the little tumors on the iris, identical with those in the right eye. The microscopic examination of many of these nodules taken from both eyes, revealed a histological structure having all the characteristics of tubercular formations. Desiring, however, the opinion of an observer more competent to make such an examination, I sent my friend Dr. Richetti some of these nodules *taken from the iris*, with the request to record the microscopic examination. He was kind enough to write me the following careful report.

"The yellowish miliary nodule pressed between the slides and placed under the microscope, was found to be composed solely of a mass of cells; some of them on the edge of the preparation were isolated. The larger number were perfectly round, with fine outline, the contents feebly granular, having one or more nuclei, bright and defined. Some of the cells, however, in the centre of the uniformly granular contents, exhibited a single nucleus, very large and quite round, with a nucleolus in its centre.

Some of these cells were partly destroyed, others perfectly preserved; the broken ones appeared corroded at their margins, the granular contents escaping.

These cells were the size of blood corpuscles, some rather larger. Some had a lengthened, pointed form, lanceolate, resembling epithelium cells, but the contents were always the same.

Although the determination of tubercle by microscopic examination is one of the most difficult tasks in microscopy, I do not think that the characteristics of tuberculous formation could be more marked than in this specimen. The so-called tubercle corpuscle (Lebert), as is known, has neither a simple nucleus nor is it solid, but rather a cell such as we had in our preparation in infinite number. In regard to the long cells, others ovoid, fusiform, lanceolate, distinct from the round ones, they are described by Virchow in his lectures on tubercle of the lymphatic glands, where he speaks of the variable consistence of tubercle according to its locality and age. Two remarks may finally be made, one referring to the case clinically and the other to our preparation.

1. I think the granulation found is of recent formation, because I could not find outside of or within these cells nuclei that might have been subjected to fatty metamorphosis.

2. Finding cells, which as remarked had most delicate outline, so well preserved, induced me to think that the Müller's fluid used to preserve the microscpic preparation had also a preservative influence on the microscopic elements accidentally or normally occurring in the organism. I therefore shall make use of this with tubercle of the other organs."

If, therefore, deduction can be made from a single case, we may conclude, 1. That the iris, like the cornea and choroid, may be the primitive seat of tubercular material. 2. That such a form of disease may be diagnosticated in the living, even when in other organs we have no certain signs of tubercular diathesis. 3. That here, as in tubercle of the choroid and cornea, death occurs from general acute tuberculosis.

THREATENED ABORTION. SUCCESSFUL TREATMENT BY CHLORATE OF POTASH AND OPIUM.

By John W. Trader, M.D., Sedalia, Mo.

This case may be of interest to the profession in establishing the theory advanced by Sir Jas. Y. Simpson of oxygenizing the blood in those cases where an anæmic condition exists.

Mrs. A., who had been married some six or eight years, has miscarried at least once each year of her married life at about the sixth month. In her last pregnancy I was called upon as her medical adviser, and, from her existing condition, was led to believe that she could never give birth to a healthy child. She was anæmic and completely prostrate. The least exercise, and in fact the erect position, would often bring about uterine contractions, and sometimes hæmorrhage. She was melancholy and sad

—expecting that fate would merely duplicate a page of her former history. I used the chlorate of potash in combination with opium with the happiest effects. Some few doses of iron were given, and some other incidental medication was resorted to—such as cathartics, citrate of magnesia, &c., but nothing which seemed to have the controlling influence of the chlorate. When we gave it she was better—when we suspended it she grew worse. I used an aqueous solution of about the following strength:

℞. Potas. chlorat., ʒij.
Elix. opii, ʒss.
Aquæ pur. ʒiv. M.

Sig. teaspoonful every three or four hours, as required.

I had tried the opium alone without the desired effect. She was compelled to keep her bed the most of the time, and at times suffered a great deal, but at the end of nine months she was delivered of a full-grown, healthy child. Four months have elapsed, and both are doing well.

CASE OF TRIPLETS.

By James F. Harlow, M.D., Boston.

On the morning of October 22d, a little after midnight, I saw Mrs. G., a native of Westford, Me., aged 31, in her sixth confinement. From her statements, I should judge she was about seven months advanced. At ten minutes before 2, A.M., she gave birth to a female child, weighing five pounds. At 2 o'clock, another girl was born, weighing one and a half pounds; and immediately afterwards a third girl, weighing four pounds. The placentæ, connected together so as to form one mass, soon followed.

The labor was a remarkably easy one. The larger children were plump and vigorous; the small one was feeble and emaciated, and died on the 25th. The mother and the other two are doing well.

At no one of her former confinements was there more than one child. Of her previous children, three girls are living; a boy and a girl having died.

Her mother had twelve children, two of which were twins, and all except one are now living. The patient is of a nervous-bilious temperament, moderate size, and not robust. Her husband, aged 36, is large and healthy.

As triplets occur only once, on an average, in about ten thousand deliveries, such a case would seem worthy of notice.

Selected Papers.

CONCEALED ACCIDENTAL HÆMORRHAGE OF THE GRAVID UTERUS.

From a paper on the above lesion, read before the Philadelphia Obstetrical Society, by William Goodell, M.D., and published in the Transactions of that Society, we make the following extract:—

The importance of early interference is well shown from an analysis of the foregoing tables. Thus, out of forty-one women who died undelivered, in twenty-five of them the membranes were unruptured. Out of ninety-three cases, forty-three of them were left to the unaided efforts of nature, and of these thirty-two perished; whilst only fifteen deaths occurred in the fifty in which artificial aid was resorted to. The methods of interference were as follows:—In twenty-four cases the membranes were punctured, with six deaths; in nine, the forceps were applied, with two deaths; in fourteen, version was resorted to, resulting fatally in five; whilst the three cases of embryulcia, viz., Nos. 1, 47, 89, were all unsuccessful.

So soon as an accurate diagnosis is made out, the rule should be imperative to deliver the woman as soon as possible, and thus lessen the bleeding surface; for as the hæmorrhage is a concealed one, it is safer to act on the assumption that it will continue until the birth of the child or the death of the woman. By simply piercing the membranes the same benefit may not accrue as in the franker forms of accidental hæmorrhage. In the latter, by an easy evacuation of the waters the hæmorrhagic area is rapidly diminished. In concealed flooding this drainage will effect nothing, should the adherent margin of the placenta not yield; and indeed, even if the placenta should become detached the blood may go on accumulating behind the membranes until it shall fill up the space originally occupied by the liquor amnii, thus rendering the condition of the woman still more perilous. To avoid this danger, after perforating the membranes a very tight binder and compresses should be applied over the abdomen to prevent any further distention, whilst other means are resorted to.

This method of treatment has been questioned by no less authorities than Baudelocque, Puzos, and others, who contend that the waters should not be drained off, or the womb emptied of its ovum, unless labor-pains be present or can be aroused,

and the os be sufficiently dilated to admit the hand. The former eminent obstetrician supports this opinion by the following fallacious dictum:—"The hæmorrhage cannot become so great as to effect such changes in the volume of the womb, without causing the expulsive action to be keenly solicited, and this soon responds by pains first resembling and ultimately becoming true labor-pains."* This opinion was also entertained by Madame Boivin, as we have already shown.

But an analysis of the cases here collected proves the contrary, and lays down as axioms:—(*a*) that the greater the hæmorrhage, the greater will be the syncope; (*b*) that the pains of labor will become feeble in direct proportion to the severity of the collapse; (*c*) that consequently they are generally absent in the worst cases of hæmorrhage, and cannot be aroused by the most powerful stimulants and oxytocics, so long as the uterus is over distended; (*d*) but that when the membranes are pierced the vital contractility of the uterine walls condenses them, and usually provokes their organic contractility, unless the system be too far depressed.

It is well to recollect that in some cases there are feeble but intermittent condensations of the uterine fibres, which have undoubtedly been mistaken by observers for labor-pains. But these closely resemble those false labor-pains which only affect the fundus, and do not dilate the os uteri; they are merely instinctive efforts on the part of nature to resent the presence of intruding clots. In the majority of cases of internal flooding, the os dilates passively; but this is due not to the natural consequences of labor, but simply to the flaccidity of the cervix and surrounding tissues, resulting from the state of collapse, and also to the *vis a tergo* of an excessive uterine distention. Hence it follows that the dilatation of the os, in the absence of labor-pains, is in itself a speaking evidence of a serious hæmorrhage. Under such circumstances it therefore behooves us not to rely upon nature to accomplish this dilatation, but to rupture the membranes early, apply the binder, and, if necessary, introduce Barnes's dilators, which are in fact more efficient than the bag of waters for rapid expansion of the os, and will obviate any necessity for incising the margin of a rigid os, as happened in one case.

If the os be dilatable, immediate delivery should next be attempted, either by the long forceps or by version. Each measure will have its advocates; but here, in our opinion, version by the feet meets all the requirements, and is decidedly preferable to the forceps; especially as the child very universally perishes at an early stage of the accident, and therefore no considerations for its safety are to embarass the efforts at a speedy delivery. If the practitioner have attended his patient in previous labors, and knows that her pelvis is ample, he is warranted in applying the forceps, provided there will be no delay in dragging the head through an imperfectly dilated os, and no subsequent detention at the perinæum. Under the most favorable circumstances a delivery by the forceps is always accompanied by more or less delay. Should the head become locked at the brim, as in my own case, or in the pelvic cavity, the physician would indeed have every reason to regret that the uterine cavity had not been previously emptied as much as possible, both by the delivery of the child's body, and by the extrusion of all the clots which the operation of version would necessarily involve.

In all other dangerous complications of labor requiring immediate delivery, version deservedly holds the first rank, because, by the bi-manual method, it can be resorted to at a much earlier period then the forceps. I have here, however, designedly placed these two operations on the same level as regards time, for when the hand can pass the os uteri, the forceps can often be applied; and in my opinion, to perform version in a case of concealed flooding, the whole hand will require to be introduced, from the fact that the bulging in of the placenta or membranes, by the extravasation behind them, would present a ledge over which the breech or body of the child could not be made to glide by the feebler purchase of the bi-manual method of version.

As ergotism cannot be induced in cases of grave hæmorrhage, ergot should be freely given, in order to counteract the tendency to relaxation of the uterine fibres, and to provoke true labor-pains after the rupture of the membranes. If, however, version be demanded, it may be prudent to withhold this drug until that operation has been performed. Of course, active stimulants, opium in full doses, beef-tea, &c., must not be spared. Warmth to the cold extremities is very grateful, and by derivation is often useful in arresting hæmor-

* L'Art des Accouchements, paragraph 1086.

rhage; perhaps, according to Chapman's theory, it would prove still more efficacious if applied also to the spine.

Finally, whenever the symptoms are obscure, and the diagnosis doubtful, act as though the case were one of concealed hæmorrhage, and follow the precept laid down by Theodore Mayerne for the management of floodings, "*præstantissimum remedium est fœtûs extractio.*"

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. CHARLES D. HOMANS, M.D., SECRETARY.

Oct. 11th, 1869.—*Icterus Neonatorum; Death on the Sixth Day, from Apoplexy—probably Meningeal.*—Dr. Morland reported the case:—

"Mrs. ——, 33 years old, born in North Carolina, white, a strong, healthy woman, of large frame, was taken in labor with her first child, on Saturday, Oct. 3d, 1869. The premonitory pains came on about 7 o'clock, A.M., of that day. Active labor, with regular, continuous pains, was established about 9 o'clock, P.M., and continued, with gradual advance of the head, until about 5 o'clock, A.M., of Sunday, the 4th of October. At this time the head seemed impacted, and neither advanced during a pain, nor receded at its cessation; the position was with the face turned towards the left sacro-iliac synchondrosis, the occiput rather forwards, looking to, or under, the right groin of the mother. Deeming a resort to forceps necessary, I sent for Dr. Gray to see the patient, and to bring his forceps. As he fully agreed with me, I applied the forceps and delivered the woman promptly. No unusual compressing force was used, although powerful effort was requisite to bring the head into the world. Considerable delay occurring with the shoulders, a finger was hooked into the right axilla and traction made with good effect. The child's mouth was full of mucus, but, this being removed, it soon cried well, and was sufficiently lively. There was so much delay in the delivery of the placenta, that its removal was effected by the hand introduced into the womb. Flowing was rather profuse, and brandy and water was administered to the mother once, and a full dose of laudanum subsequently. She has done remarkably well throughout, never having had an untoward symptom thus far; no laceration of the perinæum, nor ill effects discoverable from the use of the forceps.

The child began to grow yellow on the second day, and finally became extremely jaundiced. It was noticeably somnolent on the second, third, and fourth days; nursed but little and inefficiently; and, from the fourth day, not at all. The motions were very dark and exceedingly offensive. The urine was free, but deeply yellow. On the fourth day it began to be moderately convulsed, and would give sudden, sharp, loud cries, as if in pain, the fingers—especially those of the right hand—being firmly driven into the palms of the hands, and the forearms semi-flexed and so held. It would pass gradually from these spasmodic accesses into its usual somnolent, quiet state. The respiration was accelerated and somewhat labored during the spasmodic periods, but perfectly tranquil afterwards. The *right* eye was not voluntarily opened after the fourth day. The child died quietly on Saturday night, October 9th, about six days from birth.

"Very little was attempted remedially. The mildest purgation was induced by a half teaspoonful of castor oil, following two grains of calomel and three or four of magnesia. The child seemed easier for a time. It vomited once or twice, a dark-colored matter. The nurse stated that blood was vomited, and also voided by the bowels; but, as everything was pertinaciously thrown away, I was unable to verify the statement. A warm bath, of only two minutes' duration, was once resorted to, when the spasms seemed most violent. The child swallowed the breast-milk to the last, when carefully administered with a spoon.

"A considerable imprint of one of the blades of the forceps, just above the right eye, disappeared almost entirely on the day after delivery, and the head seemed wholly normal in shape subsequently.

"On Sunday, October 10th, at 2 o'clock, P.M., Dr. Ellis examined the body, and his report is appended. The child weighed, just after its birth, eleven pounds."

Post-mortem Examination.—"The whole right hemisphere of the brain was covered with a thick black coagulum, soft and quite recent at the vertex, but very firm at the base, where it was attached to the base of the skull and to the brain itself. It was difficult to say whether the cerebral substance had been lacerated, as its adhesion to the coagulum would prevent a separation, the natural consistency of the organ, at this period of life, being very slight. It

is probable, however, that the hæmorrhage was meningeal. The right ventricle contained a recent coagulum and considerable serum; the left, an excess of bloody serum.

"The cones of the kidneys contained the linear formations of uric acid seen in infants.

"The other organs were normal. The gall-bladder was filled with dark bile, and the gall-ducts contained enough of the secretion to give them a yellow color."

Dr. White asked if there was any impediment to respiration in the case.

The jaundice of new-born children has been referred to improper oxidation of the biliary acids in the blood. It is known that these substances, themselves colorless, are capable of being transformed artificially into products which give with nitric acid the same reaction as the coloring matter of the bile, and that by their injection into the blood of animals an excess of bile pigment is found which finds its way into the urine. It is known also that these acids after being formed by the liver are again taken up into the circulation from the intestinal canal, to be finally metamorphosed into carbonic acid and water. Under normal conditions this intermediate stage of transition, the pigmentary, is not observed, owing to the rapidity of the transformation, but when from any cause the process of respiration or oxidation is interfered with, their complete metamorphosis is prevented and an accumulation of the pigment takes place sufficient to produce jaundice. It is in this way that icterus may be explained in pyæmia, poisoning, pneumonia, &c., in which there is no obstruction to the escape of the bile from the liver, and in which its secretory function is not suspended.

Dr. Morland replied to Dr. White's question, that nothing unusual had been noticed about the respiration, except the acceleration mentioned in connection with the convulsive symptoms.

Bibliographical Notices.

The Physical Life of Woman; Advice to the Maiden, Wife, and Mother. By GEORGE H. NAPHEYS, A.M., M.D., author of "Compendium of Modern Therapeutics," Member of Philadelphia County Medical Society, &c. &c. Philadelphia: George Maclean. 1869. Pp. 252.

THIS is a book of 252 pages, 18mo.—good substantial paper—clear type. It is tastily "got up."

Our first feeling on reading the table of contents was one of surprise that Dr. Napheys—the collator of the "Therapeutical Bulletin" for the *Medical and Surgical Reporter*—should have laid before the public what we took to be a sensational production for the attraction of prurient curiosity. Our impression was derived from such captions as these, viz., "The wedding night—shall husband and wife occupy the same room and bed"; "the engagements, concerning long engagements—the right time of year and month to marry—the wedding tour." We still think these headings unfortunately chosen, and that they make the book an unsuitable one to be laid upon the counters of bookstores promiscuously frequented by the young of both sexes. But, on reading a considerable portion of the work, we perceive no such objection in the text. With that, the worst fault we can find is that here and there the convictions of the author are given to the public as maxims to be at once adopted into practice, when those convictions relate to points which are mooted questions among such as are most conversant with them. This, however, is a fault which is shared by other popular treatises. Here are examples of what we mean.

"Many a married couple have been rendered miserable by the information that they had unwittingly violated one of nature's most positive laws. Though their children may be numerous and blooming, they live in constant dread of some terrible outbreak of disease. Many a young and loving couple have sadly severed an engagement, which would have been a prelude to a happy marriage, when they were informed of these disastrous results.

"For all such we have a word of consolation. We speak it authoritatively, and not without a full knowledge of the responsibility we assume.

"The fear of marrying a cousin, even a first cousin, is entirely groundless, provided there is no decided hereditary taint in the family. And when such hereditary taint does exist, the danger is not greater than in marrying into any other family where it is also found. On the contrary, a German author has urged the propriety of such unions, where the family has traits of mental or physical excellence, as a means of preserving and developing them."

"The bed of a consumptive, it is well known, is a powerful source of contagion. In Italy it is the custom to destroy, after

death, the bed-clothing of consumptive patients. Tubercular disease has, within the past few years, been transferred from men to animals by inoculation. Authentic cases are upon record of young robust girls, of healthy parentage, marrying men affected with consumption, acquiring the disease in a short time, and dying, in some instances, before their husbands."

Of the following passage, the concluding sentence we think incorrect and unwise:—

"*What is the Age of Puberty?*—This has been a matter of careful study by physicians. They have collected great numbers of observations, and have reached this conclusion:—In the middle portion of the temperate zone, the average age when the first period appears in healthy girls is fourteen years and six months. If it occurs more than six months later or earlier than this, then it is likely something is wrong, or, at least, the case is exceptional."

Having made these criticisms, we proceed to the more agreeable duty of saying that in other respects we consider the book a most valuable one for the perusal of mothers, and of those fathers who may be equal to the task of advising sons liable to commit matrimony. The style—of the text—is unexceptionable. Words are not wasted, and those used are to the point. The volume is not a mere *résumé* of others' opinions; but the author has made the topics of which he treats his own. Some of the latter statements of ours we think are illustrated by the following passage, which we quote, with only one comment.

Those to whom this Journal is addressed are at least as competent as ourselves to draw their conclusions on the subject of it. With that quotation we close this notice.

"*On the Limitation of Offspring.*—No part of our subject is more delicate than this. Very few people are willing to listen to a dispassionate discussion of the propriety or impropriety of limiting within certain bounds the number of children in a family. On the one side are many worthy physicians and pious clergymen who, without listening to any arguments, condemn every effort to avoid large families; on the other, are numberless wives and husbands who turn a deaf ear to the warnings of doctors and the thunders of divines, and, eager to escape a responsibility they have assumed, hesitate not to resort to the most dangerous and immoral means to accomplish this end.

"We ask both parties to lay aside prejudice and prepossession, and examine with us this most important social question in all its bearings.

"Let us first inquire whether there is such a thing as *over-production*—having *too many* children. Unquestionably there is. Its disastrous effects on both mother and children are known to every intelligent physician. Two-thirds of all cases of womb disease, says Dr. Tilt, are traceable to child-bearing in feeble women. Hardly a day passes that a physician in large practice does not see instances of debility and disease resulting from over much child-bearing. Even the lower animals illustrate this. Every farmer is aware of the necessity of limiting the offspring of his mares and cows. How much more severe are the injuries inflicted on the delicate organization of woman! A very great mortality, says Dr. Duncan, of Edinburgh, attends upon confinements when they become too frequent.

"The evils of a too rapid succession of pregnancies are likewise conspicuous on the children. There is no more frequent cause, says Dr. Hillier—whose authority in such matters none will dispute—of rickets than this. Puny, sickly, short-lived offspring follows over-production. Worse than this, the carefully-compiled statistics of Scotland show that such children are peculiarly liable to idiocy. Adding to an already excessive number, they come to overburden a mother already overwhelmed with progeny. They cannot receive at her hands the attention they require. Weakly herself, she brings forth weakly infants. 'Thus,' concludes Dr. Duncan, 'are the accumulated evils of an excessive family manifest.'

"Apart from these considerations, there are certain social relations which have been thought by some to advise small families. When either parent suffers from a disease which is transmissible, and wishes to avoid inflicting misery on an unborn generation, it has been urged that they should avoid children. Such diseases not unfrequently manifest themselves after marriage, which is answer enough to the objection that if they did not wish children they should not marry. There are also women to whom pregnancy is a nine months' torture, and others to whom it is nearly certain to prove fatal. Such a condition cannot be discovered before marriage, and therefore cannot be provided against by a single life. Can such women be asked to immolate themselves?

"It is strange, says that distinguished writer, John Stuart Mill, that intemperance in drink, or in any other appetite, should be condemned so readily, but that incontinence in this respect should always meet

not only with indulgence but praise. 'Little improvement,' he adds, 'can be expected in morality until the producing too large families is regarded with the same feeling as drunkenness, or any other physical excess.' A well-known medical writer of London, Dr. Drysdale, in commenting on these words, adds: 'In this error, if error it be, I also humbly share.'

"'When dangerous prejudices,' says Sismondi, the learned historian of Southern Europe, 'have not become accredited, when our true duties towards those to whom we give life are not obscured in the name of a sacred authority, no married man will have more children than he can bring up properly.'

"Such is the language of physicians and statesmen. But a stronger appeal has been made for the sake of morality itself. The detestable crime of *abortion* is appallingly rife in our day; it is abroad in our land to an extent which would have shocked the dissolute women of pagan Rome. Testimony from all quarters, especially from New England, has accumulated within the past few years to sap our faith in the morality and religion of American women. This wholesale, fashionable murder, how are we to stop it? Hundreds of vile men and women in our large cities subsist by this slaughter of the innocents, and flaunt their ill-gotten gains—the price of blood—in our public thoroughfares. Their advertisements are seen in the newspapers; their soul and body destroying means are hawked in every town. With such temptation strewn in her path, what will the woman threatened with an excessive family do? Will she not yield to evil, and sear her conscience with the repetition of her wickedness? Alas! daily experience in the heart of a great city discloses to us only too frequently the fatal ease of such a course.

"In view of the injuries of excessive childbearing on the one hand, and of this prevalent crime on the other, a man of genius and sympathy, Dr. Raciborski, of Paris, took the position that the avoidance of offspring to a certain extent is not only legitimate, but should be recommended as a measure of public good. 'We know how bitterly we shall be attacked,' he says, 'for promulgating this doctrine; but if our ideas only render to society the services we expect of them, we shall have effaced from the list of crimes the one most atrocious without exception, that of child-murder, before or after birth, and we shall have poured a little happiness into the bosoms of despairing families, where poverty is allied to the knowledge that offspring can be born only to prostitution or mendicity. The realization of such hopes will console us under the attacks upon our doctrine.'

"It has been eagerly repeated by some that the wish to limit offspring arises most frequently from an inordinate desire of indulgence. We reply to such that they do not know the human heart, and that they do it discredit. More frequently the wish springs from a love of children. The parents seek to avoid having more than they can properly nourish and educate. They do not wish to leave their sons and daughters in want. 'This,' says a writer in *The Nation* (of New-York), in an article on this interesting subject—'this is not the noblest motive of action, of course, but there is something finely human about it.'

"'Very much, indeed, is it to be wished,' says Dr. Edward Reich—after reviewing the multitudinous evils which result to individuals and society from a too rapid increase in families—'that the function of reproduction be placed under the dominion of the will.'

"Men are very ready to find an excuse for self-indulgence, and if they cannot get one anywhere else, they seek it in religion. They tell the woman it is her duty to bear all the children she can. They refer her to the sturdy, strong-limbed women of the early colonies, to the peasant women of Europe, who emigrate to our shores, and ask and expect the American wife to rival them in fecundity. They do not reflect that she has been brought up to light indoor employment, that her organization is more nervous and frail, that she absolutely has not the stamina required for many confinements.

"Moreover, they presume too much in asking her to bear them. 'If a woman has a right to decide on any question,' said a genial physician in the Massachusetts Medical Society a few years since, 'it certainly is as to how many children she shall bear.' 'Certainly,' say the editors of a prominent medical journal of our country, 'wives have a right to demand of their husbands at least the same consideration which a breeder extends to his stock.' 'Whenever it becomes unwise that the family should be increased,' says Sismondi again, '*justice* and *humanity* require that the husband should impose on himself the same restraint which is submitted to by the unmarried.'

"An eminent English writer on medical statistics, Dr. Henry MacCormac, says: 'The brute yields to the generative impulse

when it is experienced. He is troubled by no compunction about the matter. Now, a man ought not to act like a brute. He has reason to guide and control his appetites. Too many, however, forget, and act like brutes instead of as men. It would, in effect, prove very greatly conducive to man's interests were the generative impulses placed absolutely under the sway of right reason, chastity, forecast, and justice.'

"There is no lack of authorities, medical and non-medical, on this point. Few who weigh them well will deny that there is such a thing as too large a family; that there does come a time when a mother can rightfully demand rest from her labors in the interest of herself, her children, and society. When is this time? Here again the impossibility meets us of stating a definite number of children, and saying, This many and no more. As in every other department of medicine, averages are of no avail in guiding individuals. There are women who require no limitation whatever. They can bear healthy children with rapidity, and suffer no ill results; there are others—and they are the majority—who should use temperance in this as in every other function; and there are a few who should bear no children at all. It is absurd for physicians or theologians to insist that it is either the physical or moral duty of the female to have as many children as she possibly can have. It is time that such an injurious prejudice was discarded, and the truth recognized, that while marriage looks to offspring as its natural sequence, there should be inculcated such a thing as marital continence, and that excess here as elsewhere is repugnant to morality, and is visited by the laws of physiology with certain and severe punishment on parent and child.

Continence, self-control, a willingness to deny himself—that is what is required from the husband. But a thousand voices reach us from suffering women in all parts of our land that this will not suffice; that men refuse thus to restrain themselves; that it leads to a loss of domestic happiness and to illegal amours, or that it is injurious physically and mentally—that, in short, such advice is useless, because impracticable.

"To such sufferers we reply that nature herself has provided to some extent against over-production, and that it is well to avail ourselves of her provisions. It is well known that women when nursing rarely become pregnant, and for this reason, if for no other, women should nurse their own children, and continue the period until the child is at least a year old. Be it remembered, however, that nursing, continued too long, weakens both mother and child, and, moreover, ceases to accomplish the end for which we now recommend it.'

"Another provision of nature is, that for a certain period between her monthly illnesses every woman is sterile.* The vesicle which matures in her ovaries, and is discharged from them by menstruation, remains some days in the womb before it is passed forth and lost. How long its stay is we do not definitely know, and probably it differs in individuals. From ten to twelve days, at most, are supposed to elapse after the *cessation* of the flow before the final ejection of the vesicle. For some days after this the female is incapable of reproduction. But for some days *before* her monthly illness she is liable to conception, as for that length of time the male element can survive. This period, therefore, becomes a variable and an undetermined one, and even when known, its observation demands a large amount of self-control.

"What, then, is left to her whom an inconsiderate husband does not spare, and in whom the condition of nursing does not offer—as sometimes it does not—any immunity from pregnancy?

"Even this forlorn wife science lives in hope to cheer by resources, simple and certain, which enable a woman to let reason and sound judgment, not blind passion, control the increase of her family.

"Such resources are no patents or secrets hawked about by charlatans or advertised by quacks. Were they familiar to intelligent physicians, yet with a wise discrimination, and a conscientious regard for morality, they could not reveal them except when they were convinced that they would not be abused. Therefore, we, for similar reasons, refrain from discussing the subject.

"Let women be warned in the most emphatic manner against the employment of the secret methods which quacks in the newspapers are constantly offering. Such means are the almost certain cause of painful uterine diseases and of shortened life. They are productive of more misery by far than over-production itself. 'The workings of nature in this as in all other physiological processes,' says Dr. Gaillard Thomas, 'are too perfect, too accurately and delicately adjusted, not to be interfered with materially by clumsy and inappropriate measures adopted to frustrate her laws.'

"None of these clumsy expedients is

* This statement is believed by some not to be of universal application.—Ed.

more frequent than the use of injections. None is more hurtful. It is almost certain to bring on inflammation and ulceration. 'We are prepared to assert,' says the editor of an ably-conducted medical journal in the west, 'that fully *three-fourths* of the cases we have met of the various forms and effects of inflammation of the uterus and appendages in married women are directly traceable to this method of preventing pregnancy.'

"Equally injurious to the husband is the habit of uncompleted intercourse. Nervous prostration, paralysis, premature debility and decay, are its inevitable consequences. No wife who loves her husband will ask or permit him to run this danger.

"On the contrary, when those due safeguards which medical skill may propose are employed to attain the same end, the danger seems less." * * * *

Diseases and Injuries of the Eye; their Medical and Surgical Treatment. By GEORGE LAWSON, F.R.C.S., Surgeon to the Royal London Ophthalmic Hospital, &c. Philadelphia. 1869.

THE beautiful little handbook of Mr. Lawson is intended to instruct members of the profession in the lesser diseases of the eye which occur in their general every-day practice. It does not profess to take the place of any of the more compendious works on the eye; but discusses briefly but very clearly and excellently modern ophthalmological science in a way which is very attractive. In fact it fills the place in the English surgeon's library which Dr. Williams's Practical Guide so well supplied with us a few years ago. It bears evidence of careful study as well as large experience, and may therefore be looked on as a safe guide to the oculist and general practitioner. F. H. B.

Medical and Surgical Journal.

BOSTON: THURSDAY, NOVEMBER 25, 1869.

ANÆSTHETIC INHALATION.

WHEN, a few weeks since, we wrote a paragraph in these columns to the effect that the general drift of discussion and remark would often well nigh make it appear that Edinburgh and not Boston was the birthplace of anæsthesia, we little thought that the Seal of the Town Council of Edinburgh was to be so soon placed upon our statement; or that a Scottish Baronet was perhaps at that moment meditating the speech which was to give point to our words and make them literally applicable. The English medical journals, however, which have lately been received here, are teeming with descriptions of the ceremonies at the Presentation of the Freedom of the City of Edinburgh to Sir James Y. Simpson. And the address of the Lord Provost on that occasion, together with the speech of the Knighted Physician in reply, fully confirm all that we had said on this subject. But, when the now venerable author of the famous essays on Nature in Disease comes forth, as in the following communication, from his retirement of literary leisure—a repose well earned by a life of activity as full of honors as of years—to vindicate the claims of the land which gave to the world one of the greatest medical discoveries ever vouchsafed to mankind, it becomes us to vacate the chief place in this JOURNAL and leave it to be graced for the time by his distinguished occupancy.

IN a recent copy which has reached us of the *Edinburgh Daily Review*, is contained an account of a meeting of the Town Council of Edinburgh, at which the freedom of the city was presented in a crimson velvet box, emblazoned with the city arms, to Sir James Y. Simpson, Bart., M.D., &c. &c. The account is accompanied with the speech of the Lord Provost and the reply of the eminent physician to whom this signal honor was tendered. In the address the Lord Provost says, "I will not dwell on what you have accomplished in medical science. I will only allude to your discovery —the greatest of all discoveries in modern times—the application of chloroform to the assuagement of human suffering."

No one will probably object to the proceeding of the municipal authorities of Edinburgh in conferring high honor on one of its citizens who has assisted in introducing into that city the results of an important discovery, and whose professional celebrity, like that of many predecessors, has

attracted to his place of residence an influx of strangers, thereby greatly benefiting "the hotel keepers, merchants and others of the city," not including the various manufactories of chloroform in Great Britain, one of which, "located in Edinburgh, makes as many as 8000 doses a day." But many persons will think it a mistake in the adopter of a foreign discovery to ignore the source from which he derived it. Sir James Simpson, in a long and eloquent reply to the Lord Provost, while he complacently accepts the crown of borrowed plumes thus tendered to him, makes not the slightest allusion to the country from which they were plucked, in which country anæsthetic inhalation, with more agents than one, was established, vindicated and successfully practised long before it was heard of in Edinburgh or any part of Europe.

It is not wonderful that in the designs of Providence medicinal agents should exist, capable of averting pain by the suspension of sensibility. But the wonder is that after mankind had borne pain ever since the creation of their race, any person should be found of sufficient courage and strength of conviction to put through the untried and formidable experiments necessary to decide whether life could continue, under the inhalation of a scarce respirable vapor, carried to such an extent as to destroy sensibility and produce apparent death. That man was not Sir James Y. Simpson.

The history of anæsthetic inhalation is well known. It began in this country, and was first used in the extraction of teeth, and afterwards in capital operations in the Mass. General Hospital, and in obstetrical practice. The attention of the civilized world was immediately drawn to the great American discovery. Every known variety of ethers and of compounds containing the elements of ethers, together with volatile substances, gases and vapors, were at once submitted to the test of experiment. It is possible that better agents than those now in use will hereafter be discovered, but for the last twenty years the anæsthetic practice seems to have settled mainly on two agents, viz., sulphuric ether, with which the discovery was made, and which has thus far shown itself to be the most safe and manageable, and chloroform, which is more portable and agreeable in its odor, but which experience has shown to be more frequently attended with danger in its use.

J. B.

NOTES FROM FRENCH JOURNALS.

The Microscope and Clinical Diagnosis.—Under this caption a correspondence is carried on between MM. Diday and Verneuil *pro* and *contra* M. Nélaton and his *bull* in the Paris *Figaro*; and *contra* and *pro* the microscope. Such a correspondence would in England be "spicy." In Paris it is *spirituelle*—"racy." It is the play of the small sword, as contrasted with shoulder-hitting.

M. Diday begins "My dear Verneuil," thus giving the *accolade*. In the *salon*, says Diday, a certain request is much in vogue. And yet it is contrary to *all* rules, for it is addressed by the ladies to the opposite sex; and the more wit one has, the less he can elude the demand. It is made when, about the hour for tea to be brought in, a pretty mouth adorned with its sweetest smile utters in low tones, "Doctor! a word in my album!" This supplication, my friend, however often you may have experienced it, I have known you in times past too gallant to resist for a moment. But, as I understand you to-day, you are too serious a man to be occupied for more than a week with such madrigals traced hastily upon the sand. Why then—when he has simply yielded to the prayers of her whom we all recognize as sovereign—why do you hector poor Nélaton?

To this, *sic incipit ore* Verneuil. "My dear Diday." Formerly I was no doubt more gallant than serious; and *certes* I am to-day more serious than gallant. It is no less true that at all epochs of my life I have had my eyes wide open, and have known what I was about before I left my signature as evidence against me. I may have, indeed, scribbled bad verses in an album; or upon occasion strayed in a humorous vein into the *Gazette Hebdomadaire*. But, I have hitherto thought, and still think, that a physician ought never to write upon the art of medicine in a political journal—at least over his own name. This may be over-scrupulous in me. But it is

my way. I am not, however, alone in my opinion, as you may see by referring to the London *Medical Times and Gazette* of October 2d.

To Verneuil's home question—what would you do without the microscope in the diagnosis of leucocythæmia—a disease which, in fact, could never have had a place in the nosology without that instrument—Diday responds, "leucocythæmia? in point of white globules listen to a little anecdote." Diday then dodges off upon a side issue. Here is his story, however, which we give because it is good in itself:—Drawing up a few years ago a history of urethrorrhœa, I wished to know if the urethral secretions of certain of my patients contained pus or not; and if it did, in what proportion. To tell the truth, I was judging quite well with my eye—it was quite naked at that time—and could have dispensed with the lens without inconvenience in that investigation. But yet I was willing to submit to the fashion of the day, and give a seal of precision to my researches. I subjected the aforesaid secretions to the examination of one of our most skilful microscopists. Alas! "These are pus globules!" he announced each time that he examined. Whatever was the specimen presented, were it even simple mucus (as I confess to have sent him once, out of pure malice), "these are pus globules" was the invariable statement. And as, like a true novice, I was indignant at this, he finally avowed to me that I could at any time obtain such globules by simply scraping my tongue, though clean and red with the hue of health.

Another story follows relative to the microscope *versus* spermatorrhœa. A young man, a neuropathic patient—and as such costive and continent—came to tell me, confused and in despair, that he had long suffered from seminal emissions. I question; I listen; and being fully apprised of everything, I find that it is not an affair of nocturnal emissions, but only of that viscous excretion, consisting of a few drops only, which in such conditions of the system occasionally accompany defæcation. I reason with the "poor devil," and make him understand that this excretion is not semen, as represented either by its quantity, its odor, its aspect, or the sensation caused by its expulsion. Behold my man perfectly satisfied! But his contentment is not of long duration. He goes now and then to a *confrère* much more learned than myself, who, piquing himself on his precision, subjects the discharged fluid to microscopical examination. What does he find? The tail of a single spermatozoon! And now the unfortunate, whom the *clinique*—the truth—had re-assured, the microscope in the name of its infallibility had plunged into anguish again, the worse that, in proportion to its chimerical nature, it was incurable.

Of course Verneuil replies that it was not the lens that was at fault here, but the microscopist. Nevertheless he spoils only the *logic* of the story.

In another direction, however, Verneuil gets the advantage. He offsets against the few citations of failure on the part of the microscope a long list of its triumphs in physiological and pathological investigation. Having got a sharp thrust from his adversary on the subject of the claims formerly made on behalf of the microscope in the diagnosis of *cancer*, he acknowledges that the instrument did once boast itself rather too much in this respect, but declares that after all concessions have been made, he yet thinks the famous cell, with large spherical nuclei and brilliant nucleoli, to be of great importance in carcinomatous prognosis; and prays that never may one of those bodies be deposited in the Diday parenchyma.

The following items we derive from the *Gazette Hebdomadaire*:—

Incomplete Descent of the Testicle.—Doctor Valette reports in the *Lyon Médical* a case of pseudo-strangulation due to inguinal ectopia. Instances of this kind are rare. In the present one, the surgeon decided to practise castration by a process of his own, in which the pedicle is seized by a sort of clamp mounted with caustic chloride of zinc. Recovery was rapid. The case is interesting as bearing upon the indication of castration in analogous cases. The testicle, on microscopical examination,

presented alterations which rendered its usefulness doubtful.

A Case of Lipoma of the Cerebral Pia Mater, is taken from the *Archives de Physiologie*. The tumor was situated in the pia mater covering the superior surface of the corpus callosum, to which it was closely bound by a lamelliform expansion. Chemical and microscopical examination showed lipoma. The tumor, which was in a child of two years and eight months, had given rise to no appreciable symptom. We have here another instance of the tolerance of certain tumors by the nervous substance.

This case is compared with one of lipoma observed by G. Sangalli, who found the tumor in a woman sixty-four years old. There was no indication of lesion of innervation. At the autopsy, however, there was seen on the right side of the pituitary gland, and in front of the right pisiform body, a lipoma of the size of a strawberry. The lipoma had an appendix at its posterior portion, and was covered in by the pia mater. This tumor adhered to the pituitary gland and to the pisiform body, which latter was not compressed by it.

Sewing Machines.—Doctor Espagne has written a pamphlet on sewing machines, having collected his data at large manufacturing establishments. His object is to show the importance of artificial motor action to take the place of the human pedal movement, and that not only from a business point of view, but also in relation to hygienic considerations. Reference is made to the serious inconveniences resulting from too prolonged use of the sewing machine as hitherto employed.

Measles.—The *Gazette* reports a paper by M. Girard, of Marseilles, on *The Transmission of Rubeola; its Period of Incubation; and the Dotting of the Pharynx characteristic of the First Stage of the Disease.*

M. Girard claims to base his data on a series of 108 cases minutely observed "pen in hand." An analysis of the 108 cases shows no exception to the statement that "measles is transmitted only by contagion."

[If this be universally true, then in order to account for *the first case* in any endemic of the disease, it must be assumed that the disorder is constantly prevailing in some part or parts of the world, and that its various invasions are migrations.—Ed.]

The contagion is effected, says M. Girard, during the prodromic period, before the appearance of the eruption.

The duration of the period of incubation may be definitely fixed as between thirteen and sixteen days.

The appearance of red dots on the velum palati was observed always—*without a single exception*—four, five, or at most, six days before the commencement of the cutaneous eruption.

In a discussion which followed the reading of the paper, M. Isambert and M. Buequoy insisted that contagion had occurred in some instances during the decline of the disease.

M. Champouillon remarked that Broussais in 1835 had been struck with the red-colored dotting of the velum palati in measles, but had not specified the period of its occurrence. M. Bergeron added that this appearance had been noticed by all physicians; but that for his part he had never seen it during the stage of invasion.

Instrument for intra-uterine Cauterization—for those who care to cauterize the womb intra-murally. The instrument consists of a double tube for ingress and egress of fluid; and of three caoutchouc reservoirs connecting with the canal of ingress. The largest reservoir injects distilled water to wash out the womb; one of the smaller bags of rubber throws in a solution of nitrate silver to cauterize; the third pouch emits a solution of common salt, to neutralize any excess of the last solution; and finally, the large reservoir pours in distilled water again to expel the previous intruders. All the fluids in turn escape by the canal of egress.

Hospital Tents.—The *Gazette* of October 15 has large wood-cuts representing hospital tents, and a description of the hospital-tent system, as now employed on the continent. Such arrangements might be of great general utility for sudden emergencies during invasions of epidemics—as of smallpox, or cholera—but in such a climate as that of New England will hardly supersede structures of brick or stone. In

warmer latitudes, however, they may perhaps take a wide range.

Through the kindness of the distinguished counsel—George O. Shattuck, Esq.—we have been furnished with a verbatim report of the opening statement of the Secretary of the State Board of Health, Geo. Derby, M.D., relative to the proposed filling of Charles River basin.

(*Question by Mr. Ingalls.*) *Will you give your opinion upon the proposition of filling up the Charles River, leaving a channel of three, four or five hundred feet; will you state what its effect would be in a sanitary point of view upon the locality?*

I should say that the filling up of the present limits of the Charles River basin to any considerable extent must inevitably be detrimental not only to the people of Boston, but to the people on the opposite shore, to the whole territory surrounding this locality. If you will allow me to state on what general considerations this opinion is based, there is a relation existing between the mortality of diseases and the density of the population, other influences being equal.

In the territory occupied by a hundred persons to the acre you will have more deaths, you will have in proportion more diseases, than in the territory occupied by fifty, and in a territory occupied by fifty you will have more than in a territory occupied by ten.

This general proposition has been established beyond all question in Europe, and in this city. This is due to the purity or impurity of the wind, and the air enjoyed by the inhabitants of the territory chiefly—I should say almost exclusively, in my own individual opinion. Setting aside the question of drinking-water, I should think it a question of air almost entirely, and I should say in almost all circumstances it was a question of the purity of air.

This impurity arises from two or three sources—one, the respiration of men and animals and the exhalations from the body and from the decomposition of organic matter thrown into the air; and also from the fermentation of the excrement of animals and of men, and from the decomposition of animal and vegetable substances, chiefly those used as articles of food.

As the air is rendered more pure, life is certainly saved; as air is rendered less pure, life is certainly sacrificed.

The particular forms, the particular diseases, under which death and sickness visit a population under these circumstances of impure air, decomposition from animal or vegetable substances, are, I should think, felt at the extremes of life, and especially in infancy.

Young children are the sensitive gauge of the sanitary condition of a territory or district. There the mortality is chiefly felt, and chiefly in those cases through diseases of the bowels. There prevail such diseases as cholera infantum, diarrhœa, bowel complaints—what people understand as summer complaints—both of children and of old people. But this influence is by no means confined to the extremes of life. It is felt by persons of all ages in a greater or less degree.

The power to resist the influences of disease which are around us everywhere at all times, is certainly diminished at all ages, and with persons of all degrees of strength, by impure air—by the habitual inhalation of impure air.

The application of these general principles to the case in hand is this:—The population require open spaces for the mixture and diffusion of pure air with impure air, for it is by this process that impure air becomes pure through the diffusion and mingling of the two. Therefore it is found necessary, it is found beneficial to the health of all crowded communities to have open spaces, whether of land or water. The peculiarity of the influence of this open space upon the health of Boston lies in the fact that it is of great extent; that it is on the western side of the city; that the winds, the prevailing winds of summer—the almost constant wind of extreme hot weather—comes from this basin. It strikes the city purified, freshened, cooled upon its whole western side, and I think there can be no doubt that its influence is felt over the whole territory from Dover Street to Copp's Hill. Its influence is diminished as it passes over the city. It may be less in certain conditions of the wind, but I should think with a strong wind that its influence for good cannot be entirely lost until it strikes the harbor on the other side of the city.

I have lived in Charles Street for three years, and I know the temperature; I know, in the first place, that the wind there is extremely pleasant in summer, almost as good as we find in the country; I know that the temperature is from three to five degrees lower in the summer months at my house in Charles Street than it is in Washington Street; I should say an ave-

rage of four degrees during the months of July, August and September.

For these reasons I should greatly regret the limitation or material abridgment of the water park, which I consider of the highest sanitary value.

We specially commend the following to the notice of the Profession:—

Boston, Nov. 12th, 1869.

Mr. Editor,—I enclose a copy of a circular recently issued by the State Board of Health, and distributed extensively. The intention is to make known to the Selectmen of every town (who are ex-officio the Board of Health) what their powers and duties are under existing laws. The weekly mortality report is intended to include the twenty largest cities and towns. You observe that I got seventeen last week—nineteen were received, but two came too late. I confidently expect very soon to get them with perfect regularity, and thus show the drift of preventable disease from week to week. I enclose one of the blank returns furnished to the town clerks, which will show you how this is done. By not aiming at too much, I hope to get these most essential indications in a form which will be useful to the profession.

The State Board is now actively engaged in getting information upon a few important subjects, and the results will be published in their report at the end of the year.

Very truly yours,

George Derby.

We reprint the following circular, mentioned in the above note.

Commonwealth of Massachusetts:

State Board of Health,
Boston, Oct., 1869.

To the Boards of Health of the several Cities and Towns of Massachusetts:—

The undersigned have recently been appointed by the Governor and Council, to constitute the "State Board of Health," under an act passed by the last Legislature.

In entering upon our duties, which are rather advisory than executive, we desire to establish such communication with the local Boards having this important subject in charge, that all may work together, for the common advantage of the people, for the prevention of disease, and for the prolongation of life.

We believe that all citizens have an inherent right to the enjoyment of pure and uncontaminated air, and water, and soil; that this right should be regarded as belonging to the whole community; and that no one should be allowed to trespass upon it by his carelessness, or his avarice, or even by his ignorance. This right is in a great measure recognized by the State, as appears by the General Statutes.

If these were strictly and impartially enforced, we should have a condition of public cleanliness, and of public health, which would make Massachusetts a model for all other communities. That this has not been done depends upon many causes, some of general, and others of purely local operation.

It has been doubted, whether the public mind is sufficiently aware of the dangerous elements around us; whether the connection between filth and disease is as yet proved to the public satisfaction; whether the people are convinced that undrained land is unwholesome to live upon.

All these doubts of the public intelligence have impeded the operation of our laws.

It is thought also that local and private interests have often been so strong as to paralyze the action of the Health authorities.

But we hope and believe that a better time is coming; and we confidently look to you to put in force the powers which the laws have placed in your hands.

Among these laws we would particularly call your attention to—

General Statutes, Chapter 26, in which are comprised stringent provisions relative to the abatement of nuisances, to vaccination, to contagion, and to offensive trades.

Also, to Chapter 49, Section 151, relative to the sale of milk produced from cows fed upon the refuse of breweries or distilleries, and to the sale of milk rendered unwholesome by any cause.

Also, to Chapter 166, in which the law is given relative to the sale of unwholesome provisions of all kinds, whether for meat or drink; the corruption of springs, wells, reservoirs, or aqueducts; the sale of dangerous drugs, and the adulteration of drugs of every sort.

It will also be seen, on reference to Chapter 211 of the Acts of the year 1866, that it is in the power of any person aggrieved by the neglect of the Board of Health of any city or town to abate a nuisance, to appeal to the County Commissioners, who can in that case exercise all the powers of the Board of Health.

Chapter 253 of the Acts of 1866 authorizes Boards of Health to seize and destroy the meat of any calf killed when less than four weeks old.

Chapter 271 of the Acts of 1866 authorizes

Boards of Health to appoint agents, to act for them, under certain restrictions.

The Legislature of 1868 passed two acts of great importance to the public health, to which we would respectfully and earnestly ask your attention. The first, Chapter 281, 1868, applies only to the city of Boston, and relates to tenement and lodging houses, placing them under very strict regulations, for the public good.

The second, Chapter 160, is of general application. It provides that in any city or town, lands which are wet, rotten, or spongy, or covered with stagnant water, so as to be offensive, or injurious to health, shall be deemed a nuisance, to be abated by the Board of Health of such city or town. In case they refuse to act, appeal may be made, by persons aggrieved, to the Superior Court or any Justice thereof, who may appoint three Commissioners with power equal to those possessed by Boards of Health.

We confidently look to you for the enforcement of these laws.

We believe that public opinion will fully support you in so doing.

We will give you all the help in our power.

There is a great work before us, which, if carried out in the letter and spirit of the laws referred to, we cannot doubt will justify the wisdom which framed them.

In making this our first communication to the Boards of Health of the various Cities and Towns of the Commonwealth, we sincerely hope that it may serve as the opening of friendly and helpful relations between us, and that it will lead to reforms, the effects of which will be evident in the improved condition of public health.

Communications addressed to our Secretary, Dr. George Derby, State House, Boston, will be at once acknowledged, and will be laid before the State Board of Health at their next meeting.

Very respectfully,

Your obedient Servants,

Henry I. Bowditch,
George Derby,
Robert T. Davis,
Richard Frothingham,
P. Emory Aldrich,
Warren Sawyer,
William C. Chapin,
State Board of Health.

Appended is a copy of the blank issued to the town clerk of each of the larger places in the State:—

Report of deaths in ——— for the week ending Saturday noon, 18 .

(To be mailed to the Secretary of the State Board of Health on the succeeding Monday.)

Diseases.	No. Deaths.
Smallpox and varioloid	
Measles	
Scarlet fever and scarlatina	
Diphtheria	
Croup	
Influenza	
Whooping cough	
Erysipelas	
Cholera morbus	
Cholera infantum	
Asiatic cholera	
Typhoid and typhus fever	
Dysentery and diarrhœa	
Consumption	
Pneumonia and inflammation of lungs	
All other diseases and causes of death	
Total number of deaths	

Remarks.

Death from Chloroform. By John Murray, M.D., F.R.C.S.E., &c.—On the 11th of this month a young man was admitted into the Ovens district Hospital for a disease in one of his fingers, which it was decided to amputate. As the patient was very nervous, chloroform was employed, at his own desire, the administration of which resulted in his death.

An inquest was held, and a lengthy examination of the medical gentlemen attending the case was made; the verdict stated that death resulted from stoppage of the heart's action. Before the chloroform was used, the usual examination of the patient's heart and chest by the stethoscope was made, and nothing abnormal discovered.

On the 20th of March a patient in the Lying-in-Hospital died during the administration of chloroform, while undergoing an operation for the relief of prolapsus uteri. At the *post-mortem* nothing unusual was discovered, except a slightly flabby state of the heart. The verdict attributed no blame to any person.

A third case occurred in the Melbourne Hospital about a year and a half ago, when the *post-mortem* examination disclosed a diseased state of the heart, but the description was very imperfect.

Now, in the first of these cases, it appears that the usual precautions were taken, and nothing unfavorable discovered, and yet one of the medical witnesses stated that the right auricle was in a state of fatty degeneration, which might have been discovered

by an accurate stethoscopic examination, and yet was not.

What then was the cause of death? Was the stethoscopic examination of the heart, lungs, &c., so minute and accurate as to preclude the conviction of serious disease in these organs? or did death occur from the bad quality of the chloroform? That such might be the case is evident from the noxious character of the impurity occasionally found in chloroform.

There is an impurity not unfrequently found in this drug and altogether unsuspected. * * * *

Whether any of the three deaths occurred from the use of impure chloroform or not, would be ascertained by the acid test, which ought always to be tried when the article is supplied to a public institution. Every druggist should also test his chloroform, so as to guard against accidents in private practice.

In connection with this subject, I may remark that no detailed report of the medical evidence at the inquest was furnished in any of the Melbourne journals, but in the local paper of the Ovens, which is not seen by the profession generally, a full report is given.

Whether medical coroners are to be continued or no, a full official report of the medical evidence ought to be furnished in every case, and published in the *Government Gazette*, for the benefit of the public and the profession.—*Australian Medical Gazette.*

A LETTER from Dr. Barnes, on his water-bags, concludes as follows:—

A word as to the action of the water-bags. It is simply adjuvant, and is not always required. I have divided the agents for inducing labor into two classes—the provocative and the accelerative. The catheter is provocative, the water-bags accelerative. I do not use them to provoke labor, but to expand the cervix where uterine action cannot be evoked. The principles of action are summarized in the following propositions drawn from the histories of cases in the memoir referred to:

"1. In induced premature labor the accomplishment of delivery is extremely uncertain as to time.

"2. This uncertainty involves danger to the mother and child.

"3. The immature condition of the uterus often entails defective contractile power and increased resistance to the passage of the child.

"4. Hence it is desirable to aid the dilation of the cervix, and to supplement the contractile power, to watch and control the course of labor throughout, and to bring it to a termination within a definite period.

"5. This aid can be offered safely and beneficially by the cervical water dilators, and by the forceps, and turning.

"6. By the proper use of these accelerative means, children may be saved which would otherwise in all probability perish.

"7. In the management of cases of placenta prævia these accelerative means are of eminent value.

"8. Labors may always be completed with safety within twenty-four hours."

These propositions embody the principles of action in the induction of premature labor. Of course judgment and practised skill are requisite to carry them out so as to insure the greatest amount of success. But, given these conditions, I have no hesitation in affirming that the operation for the induction of labor, which, heretofore, had been almost a matter of accident so far as the result to the child is concerned, may now be looked upon as a scientific proceeding, combining safety and certainty in a high degree.—*London Medical Times and Gazette.*

PARCHMENT.—The ancient process employed for producing parchment was nearly analogous to that now actually in use. Goat and sheep-skins are preferred for making parchment; while calf, lamb, and still-born kid-skins are reserved for vellum. The art of the parchment maker consists in making these skins very thin and almost transparent, they yet being perfectly firm and strong for use. After the hides have been depilated, unfleshed, and partly ungreased, they are immersed into a solution of alum and sea salt; they are then very quickly dried and stretched out on wooden frames, by means of screws, and drawn so tightly that no wrinkle or fold remains. When the skin is very dry the workman, with a sharp iron, takes off all the flesh which may adhere to its internal surface, then, turning his grater towards the back, he removes all the dirt, and the water which has accumulated on the external side, or epidermis, taking great care not to injure the same. Upon which he proceeds to pounce it, that is to say, he covers the skin, on the inner side only, with a layer of very fine powdered dead lime, and then passes a large pumice-stone over it. The lime absorbs with rapidity all the water yet retained in the skin. After these operations, the skin is again dried, and then given to the polisher, who treats

it again in precisely the same manner as before described. He makes it thinner and more equal, gives it a beautiful polish, by means of a very soft pumice-stone. The parchment is then folded, shaved off, put in the press, and sent forth to the trade. Vellum is only a superior quality of parchment; it is made of the finest skins, generally from the lamb or the calf, as its name indicates (*veal* in the middle-ages meant calf). A solution of gum water and fine white-lead is spread on the vellum, in order to give it a whiter and smoother aspect. The intestines of animals have sometimes been employed. Zonore states, in his "Annals," that the Library at Constantinople possessed Homer's works written in golden letters on the intestine of a serpent, which was 120 feet in length. Parchment in former times was dyed yellow or purple; the latter being generally reserved for sacred books, or for the use of royal families.—*Morgan's Brit. Trade Journal.*

Poisoning by Puerperal Blood Injected into the Veins of Animals. By M. Cozel.—Three rabbits inoculated with puerperal blood died with convulsions and spasms of the respiratory muscles, as if from strychnine. Two of them uttered plaintive cries before death, like animals inoculated with putrid blood. He states that he never saw the same effect produced by inoculation with the blood of patients suffering from scarlet fever. The puerperal blood taken from different parts of the body showed, under the microscope, an augmentation of white corpuscles; the red globules, generally altered in shape, exhibited an abundance of fibrinous tracks. The lungs were dark-colored, and in places ecchymosed; they presented more resemblance to the state observed in asphyxia than in inflammation; no signs of the latter could be discovered by the microscope. The spleen was dark-colored, and gorged with blood, which presented all the alterations mentioned above. These were the only organs altered.—*Gazette Médicale de Strasbourg.*

Relief from the Use of Strong Coffee during the Passage of a Lithic-acid Calculus.—Patient, æt. 36, was attacked 10th Sept. last, with intense pain over the region of the left kidney, and along the course of the corresponding ureter, the result of the passage of a calculus. He had frequently, previous to the attack, passed several small lithic-acid calculi, with his urine. The attack was violent, and his suffering almost intolerable. Chloroform was used frequently to anæsthesia, and also internally in liberal doses, with tinct. opii and morphia sulphas, with sinapisms and hot hip bath, with only temporary relief.

All seeming to fail, the following treatment was adopted with prompt and permanent relief.

Half a pound of strong ground coffee was added to twelve teacupfuls of hot water, which was boiled down to nine. One teacupful was ordered hot every twenty or thirty minutes, until eight were administered, which gradually brought on perfect relaxation and complete subsidence of all pain. He has felt not the slightest evidence of a return of the attack up to this time, Oct. 10, 1869.—*Medical Bulletin.*

Cholera in Bengal.—After a temporary cessation, cholera has lately reappeared with increased vigor among our troops in Bengal. Latest accounts mention that there have been rather more than 500 admissions and 300 deaths of soldiers from cholera and choleraic diarrhœa. Among the women and children the disease has also been very prevalent. The regiments which have suffered most are the 58th at Allahabad, the 62d at Lucknow, the 1st Battallion 7th Fusileers at Saugor, the Artillery and the 103d Regiment at Morar, and the 41st Regiment at the hill-station of Subathoo. At most of the other up-country military stations occasional cases have occurred, showing a very general epidemic influence. Thus far no cases appear to have occurred among the British troops at Calcutta, and only one at Dum Dum early in the season. We regret to see that Assistant-Surgeon G. C. Dunn, of the 5th Lancers at Lucknow, has been carried off by cholera. This is the second Medical officer who has fallen a victim during the present epidemic, the other having been Assistant-Surgeon A. E. Hale, of the 103d Regiment. They were both young men, having entered the service in October, 1866, and September, 1864, respectively.—*Medical Times and Gazette.*

Mr Reid, of the Geelong Hospital, records (*Lancet*) another total extirpation of the tongue, an operation which he has performed several times. In this case, as we believe in all hitherto reported, the disease (cancer) recurred in the glands of the neck, and death ensued within a year.—*Medical Gazette.*

Medical Miscellany.

We accidentally omitted to mention in our last issue that the notice it contained of Dr. Ordronaux's book was kindly furnished us by a gentleman of the Suffolk Bar—well known in legal circles as a contributor to the *American Law Review*.

The statue of Dupuytren was recently inaugurated at Pierre-Buffière, with a discourse by M. Dépéret-Muret, Professor at the School of Medicine at Limoges.

We have seen it announced that the Bristol South District Medical Society have voted to request the Representative to Congress from their district to vote for the rehabilitation of the Medical Corps of the Navy.

The mooted Naval Question.—The naval board, to investigate the quarrel between line and staff officers, will soon meet, and the intention is to have it report so that the document can be laid before Congress next month, if called for. The board consists of ten officers, five from the line and five from the staff. Six of the number are believed to side with the line, and four with the staff. There is a good deal of interest in naval circles about the contemplated inquiry.—*Boston Daily Advertiser.*

The Navy.—The names of the officers detailed by the Secretary of the Navy to examine into and report upon the differences between the line and staff officers, have not, the Secretary says, been correctly published. The following list, which is correct, has been furnished by Secretary Robeson:—

President, Commander M. Smith, Chief of Bureau of Equipment and Recruiting. Members—Commander Jas. Allen, Chief of Bureau of Navigation; Commander A. L. Case, Chief of Bureau of Ordnance; Captain Daniel Ammen, Chief of Bureau of Yards and Docks; Naval Constructor John Lenthall, Chief of Bureau of Construction; Surgeon William Wood, Chief of Bureau of Medicine and Surgery; Paymaster E. T. Dunn, Chief of Bureau of Provisions and Clothing; Chief Engineer J. W. King, Chief of Bureau of Steam Engineering; Captain William Reynolds, United States Navy; Surgeon N. Pinkney, United States Navy.

It will be observed that the board is composed of five line officers and five staff officers.—*Ibid.*

The London Medical Schools.—The official report shows that at the eleven schools of medicine in London, 1,231 gentlemen are pursuing their studies. This is three more than in 1860, the year of the "rush" to escape the new preliminary examination. The freshmen are 96 at Guy's, 80 at St. Bartholomew's (notwithstanding the dissatisfaction that exists), 71 at University College, 33 at King's College, 29 at the London Hospital, 28 at St. George's, 28 at St. Thomas's, 16 at St. Mary's, 15 at Middlesex, 7 at Westminster. Charing Cross boasts of 18; but when we consider that there are arrangements at that school for free scholarships, and that the teachers have some privileges of introducing pupils who cannot pay the usual fee, it can scarcely be called in flourishing condition. There are, we believe, at some hospitals a few who have not yet registered, and one or two others who only enter for partial instruction.—*Dublin Med. Press and Circular.*

MEDICAL DIARY OF THE WEEK.

Monday, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

Tuesday, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9, A.M., Boston Dispensary. 11, A.M., Massachusetts Eye and Ear Infirmary.

Thursday, 9 A.M., Massachusetts General Hospital, Medical Clinic. 11, A.M., Massachusetts Eye and Ear Infirmary.

Friday, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., Operations. 9, A.M., Boston Dispensary.

Saturday, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., Operations.

Erratum.—In our issue of Nov. 11th, page 264, instead of "raise its specific gravity above," read *make its specific gravity less.*

To Correspondents.—Communications accepted:—Strabismus, &c.—Ulceration and Stricture of the Intestine, &c.—Norfolk District Society Records—Experiments with Chloral—A Case of Remarkable Endurance—A Suit for Malpractice—Resources of Southern Fields and Forests, &c., a Review.

Deaths in sixteen Cities and Towns of Massachusetts for the week ending Nov. 20, 1869.

Cities and towns.	Number of deaths in each place.	Prevalent Diseases. Consumption.	Typhoid Fever.	Croup.
Boston	114	20	5	3
Charlestown	6	2	0	0
Worcester . .	7	1	0	0
Lowell	11	2	1	0
Chelsea . . .	5	1	0	0
Salem	10	2	0	0
Lawrence . .	9	2	1	0
New Bedford	11	0	1	1
Springfield .	11	4	1	0
Lynn	5	2	0	0
Pittsfield . . .	0	0	2	0
Gloucester .	6	1	1	4
Taunton . .	2	1	0	1
Newburyport	5	1	0	2
Fall River .	6	0	0	0
Haverhill . .	5	1	1	0
	218	40	13	11

Boston reports thirteen deaths from pneumonia and eight from scarlet fever; New Bedford two from measles, and Springfield one from smallpox.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending November 20, 114. Males, 54—Females, 60.—Abscess, 1—accident, 2—apoplexy, 1—asthma, 1—inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 6—inflammation of the brain, 1—bronchitis, 5—cancer, 2—consumption, 20—convulsions, 4—croup, 3—cyanosis, 1—debility, 4—diarrhœa, 2—diphtheria, 2—dropsy, 2—dropsy of the brain, 1—bilious fever, 1—scarlet fever, 8—typhoid fever, 5—disease of the heart, 4—homicide, 1—insanity, 1—jaundice, 1—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 13—marasmus, 3—old age, 4—paralysis, 2—pleurisy, 1—premature birth, 2—rheumatism, 2—unknown, 3.

Under 5 years of age, 41—between 5 and 20 years, 8—between 20 and 40 years, 25—between 40 and 60 years, 18—above 60 years, 22. Born in the United States, 74—Ireland, 32—other places, 8.